

# **National Marine Fisheries Service Essential Fish Habitat Final Recommendations and Information to the South Atlantic Fishery Management Council**

August 1998

## **Background**

On December 19, 1997, the National Marine Fisheries Service (NMFS) published an Interim Final Rule (62 FR 66531) (hereafter referred to as Guidelines) and consultation procedures which provide direction for implementing the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). The Guidelines are intended to assist Fishery Management Councils (Councils) and the Secretary of Commerce (Secretary) in describing and identifying EFH in fishery management plans (FMPs), including identification of adverse impacts from both fishing and non-fishing activities on EFH, and identification of actions required to conserve and enhance EFH. The Guidelines also detail procedures that the Secretary (acting through the NMFS), other Federal agencies, state agencies, and the Councils will use to coordinate, consult, or provide recommendations on Federal and state activities that may adversely affect EFH. The intended effect of the Guidelines is to promote the protection, conservation, and enhancement of EFH.

For the NMFS, a key component of its MSFCMA responsibilities is developing recommendations and information for use by the South Atlantic Fishery Management Council (SAFMC) in preparing EFH descriptions and amending the FMPs to ensure EFH conservation and enhancement. The Guidelines describe this process as follows:

After reviewing the best available scientific information, as well as other appropriate information, and in consultation with the Councils, participants in the fishery, interstate commissions, Federal agencies, state agencies, and other interested parties, the NMFS will develop written recommendations for the identification of EFH for each FMP. In recognition of the different approaches to FMP development taken by each Council, the NMFS EFH recommendations may constitute a review of a draft EFH document developed by a Council, or may include suggestions for a draft EFH FMP amendment and may precede the Council's development of such documents, as appropriate. In both cases, prior to submitting a written EFH identification recommendation to a Council for an FMP, the draft recommendation will be made available for public review and at least one public meeting will be held. NMFS will work with the affected Council(s) to conduct this review in association with scheduled public meetings whenever possible. The review may be conducted at a meeting of the Council committee responsible for habitat issues or as a part of a full Council meeting. After receiving public comment, NMFS will revise its draft recommendations, as appropriate, and forward a final written recommendation and comments to the Council(s).

This document constitutes the final NMFS recommendations and information as specified in the Guidelines. It is based on our review of the SAFMC's Draft Comprehensive EFH Amendment (DCA) which was developed by the SAFMC in cooperation with the NMFS and other Federal, state, and regional habitat partners in the Southeast region. In fulfilling its EFH responsibilities

## **NMFS Essential Fish Habitat Final Recommendations To SAFMC**

the NMFS and the SAFMC have sought to cooperate with, and receive input from the Atlantic States Marine Fisheries Commission (ASMFC), state representatives, and representatives from the fishing public and non-governmental organizations. Comments on these recommendations were solicited through a notice in the Federal Register, notice in the SAFMC news letter, and through public meetings held in St. Augustine, Florida, and Charleston, South Carolina. Comments on the draft recommendations, as well as responses by NMFS meeting officers, are provided in Attachment 1 and were considered in preparing this document.

The NMFS views the EFH descriptions as “a work in progress” since the MSFCMA requires that FMP amendments be submitted by October 1998, and as of this writing, the Guidelines are not final. The best available information that could be gathered in the time available was used in developing these recommendations and information and the EFH descriptions. Any substantive new and/or additional information, including results from scientific research directed at this effort, will be used to more precisely describe EFH and Habitat Areas of Particular Concern (HAPC) and their locations. As such, further amendment of the FMPs may be needed and the EFH provisions will be reviewed every five years or sooner. The SAFMC will revise the habitat plan and develop further amendments to the FMPs as needed.

### **EFH Description Development Process**

The development of the EFH Amendment for the SAFMC began with establishment of the NMFS Southeast Region (SER) EFH Implementation Team in the summer of 1997. The team assisted in information synthesis and preparation of draft documents, and included the following members:

South Atlantic Fishery Management Council

- Roger Pugliese (Biologist - SAFMC Lead)

ASMFC

NMFS SER/SEFC

- William B. Jackson, Fishery Management Specialist (SER Team Leader)
- David H. Rackley, Fishery Biologist
- Andreas Mager, Jr., Assistant Regional Administrator, Habitat Conservation Division (HCD)
- Gordon W. Thayer, Research Fishery Biologist, Beaufort Laboratory

NOAA National Ocean Services (EFH Amendment GIS figures and tables)

- Mark Monaco
- Steve Brown

To address the MSFCMA EFH mandates, the SAFMC developed:

- (1) a habitat plan that has served as the source document for identification of EFH for managed species in each FMP;
- (2) a description of EFH for each species or species group managed by the SAFMC and a description of the impacts of fishing gear and/or fishing practices on EFH; and
- (3) a monitoring program for each FMP that enables identification of impacts caused by fishing gear and practices and, to the extent practicable, for use in minimizing adverse impacts on EFH.

Together, these three items comprise the DCA.

In recognition of the magnitude of effort needed to fulfill the EFH mandates of the MSFCMA, the SAFMC called upon members of its Habitat and Coral Advisory Panels and other existing committees and panels to work on or to identify experts who might participate in various plan development tasks. The SAFMC also initiated a workshop process to obtain input from fishery habitat experts, to determine information needs, and to identify EFH within the South Atlantic region. Individual workshops focused on key habitat types such as wetlands, oyster/shell habitat, seagrass, pelagic environments (including Sargassum communities and certain areas of water column), coral and live/hard bottom, and artificial reefs. Other workshops addressed research needs, activity and resource monitoring, and the use of geographic information systems (GIS) for mapping habitat and species distribution.

Through its regular meetings, special meetings, and workshops, the SAFMC and NMFS have worked cooperatively with state, Federal, and regional habitat partners in the Southeast to address their respective EFH mandates as specified in the MSFCMA. The composition of representatives associated with the “Council process” and the public nature of these meetings has fostered inclusion of a wide spectrum of views and expert review. This includes representation from the NMFS Southeast Regional Office, the SER Regional Administrator and Assistant Regional Administrators; the NMFS Southeast Fisheries Science Center Beaufort Laboratory, the National Ocean Service’s (NOS) Charleston Laboratory; the NMFS SER Science and Habitat Coordinator; NMFS Headquarters; members/staff from the SAFMC and its Habitat Committee and Habitat Advisory Panel; staff from the ASMFC; the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency Region IV; the NOAA Strategic Environmental Assessment (SEA) Division (mapping); the NOS Coastal Services Center; the North Carolina Division of Marine Fisheries; the South Carolina Department of Natural Resources; Georgia Department of Natural Resources; Florida Department of Environmental Protection; conservation organizations; commercial and recreational fishermen; and other agency and private sector representatives who participated in council meetings, in various special meetings and workshops, and through the public review process.

### **Application of NMFS Guidelines for EFH Designations and Recommendations**

The MSFCMA defines EFH and the Guidelines provide NMFS interpretation as follows:

“Essential fish habitat (EFH) means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. For the purposes of interpreting the definition of essential fish habitat: ***Waters*** include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; ***substrate*** includes sediment, hard bottom, structures underlying the waters, and associated biological communities; ***necessary*** means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem; and “***spawning, breeding, feeding, or growth to maturity***” covers a species’ full life cycle.”

This definition is the basis upon which EFH has been designated. The following discussions detail how the Guidelines were applied to the EFH designations and recommendations.

Fish habitat, or the geographic area where the species occurs at any time during its life, can be described by ecological characteristics, location, and time. EFH includes waters and substrate that focus distribution [e.g., coral reefs, marshes, or submerged aquatic vegetation, and other less distinct characteristics such as turbidity zones, salinity gradients, and water quality variation]. Habitat use may change or shift over time due to climatic change, human activities and impacts, and/or other factors such as change with life history stage, species abundance, competition from other species, and environmental variability in time and space. The type of habitat available, its attributes, and its functions are important to species productivity, diversity, health, and survival.

### **Scope of EFH and species covered**

**The Guidelines recommend that an EFH provision in an FMP include all fish species in the fishery management unit (FMU) and that geographically, EFH may be described and identified in waters of the United States, as defined in 33 CFR 328.3, and the exclusive economic zone, as defined in 50 CFR 600.10.**

The DCA, when finalized, will amend all SAFMC FMPs [shrimp; red drum; the snapper grouper complex; coastal migratory pelagic resources (mackerels); golden crab; spiny lobster; coral and coral reefs and live/hard bottoms] and will establish new FMPs for sargassum and calico scallops. The DCA describes EFH for shrimp (6 species), the snapper grouper complex (73 species), the coastal migratory pelagic species complex (6 species), golden crab, spiny lobster, coral, coral reefs, and live/hard bottom habitat (175 coral species and live/hard bottom habitat), and the life stages of selected managed species or species complexes. The selected species and species complexes, are typical of most species under management by the SAFMC and were chosen based on the availability of information needed to reasonably describe and map their essential habitat within the time limits allowed for amending the FMPs, and the usefulness of the species to represent other species for which information is limited. The collective distribution of these species encompasses a large portion of the marine and estuarine waters of the South Atlantic; however, most species or groups occupy only limited portions of the overall South Atlantic region.

EFH is described as everywhere that the above managed species commonly occur. Because of differences in their biological, chemical, and physical characteristics, and in view of certain management considerations, the DCA separates EFH into estuarine (inshore) and offshore components. For the estuarine component, EFH includes portions of estuarine waters and substrates (mud, sand, shell, rock and associated biological communities), including emergent saltmarsh and brackish water marshes, shrub/shrub habitats including mangroves, seagrass beds, oyster reefs and shell banks, intertidal flats, palustrine emergent and forested wetlands, submerged rooted vascular plant beds, freshwater aquatic beds, and water column. In marine waters of the South Atlantic region, EFH includes specified portions of waters and substrates (mud, sand, shell, rock and associated biological communities) from the shoreline to the seaward limit of the Exclusive Economic Zone (EEZ) including coral and coral reefs, live/hard bottoms, artificial and manmade artificial reefs, and pelagic habitats including sargassum and certain water column locations and conditions such as frontal zones. Geographically, the EFH designations extend from the permanent freshwater zones of estuaries and coastal areas to the seaward limit of the EEZ, and from Key West, Florida to the waters off Virginia; except for red drum which extends through Virginia.

Based on the scope of information covered, the NMFS believes that the SAFMC's draft amendment sufficiently complies with the requirement to describe EFH for all species in a fishery management plan. Exceptions to this determination, and recommended changes are addressed in the following. In connection with the Sargassum EFH, we note that the SAFMC includes an area located outside of the EEZ. This specific area should be deleted from the final EFH amendment.

#### **Habitat requirements by life history stage**

**The Guidelines state that FMPs must describe EFH in text and with tables that provide information on the biological requirements for each life history stage of the species. These tables should summarize all available information on environmental and habitat variables that control or limit distribution, abundance, reproduction, growth, survival, and productivity of the managed species. Information in the tables should be supported with citations.**

The SAFMC is presently amending its FMPs to describe EFH using narrative accounts, tables, and maps that contain information on the biological requirements for each life history stage of a managed species. These documents summarize available information on environmental and habitat variables that control or limit distribution, abundance, reproduction, growth, survival, and productivity of a managed species. The habitat requirements information includes a compilation of scientific data, with documentation, that includes previous FMP data as well as new and updated information developed through the process described in preceding sections of this document. The life history information relies heavily on findings presented in NOAA's Estuarine and Living Marine Resources (ELMR) Program which is based on information

provided by states involved in sampling programs for estuarine dependent species. NOAA's SEA Division assisted in the data collection and they prepared the species life stage distribution maps used in the DCA. The SEA Division and South Atlantic state agencies will provide the SAFMC with Arc View coverages for inclusion into a GIS system. In addition, Marine Resources Monitoring and Assessment and Prediction Program (MARMAP) data collected by state agencies was also used in determination of bottom habitat distribution. Combined ELMR and MARMAP information was mainly used to verify use of habitats described in the habitat plan for managed species.

The NMFS believes that the SAFMC draft amendment sufficiently describes the biological requirements of each life history stage of the managed species. The NMFS encourages that this information base be continually updated and supplemented to remain current and as complete as possible.

### **Description and identification of EFH**

**The Guidelines recommend that the descriptions and identifications of EFH be accomplished as follows:**

**A. An initial inventory of available environmental and fisheries data sources relevant to the managed species should be used in describing and identifying EFH. This inventory should also help to identify major species-specific habitat data gaps. Deficits in data availability (i.e., accessibility and application of the data) and in data quality (including considerations of scale and resolution; relevance; and potential biases in collection and interpretation) should be identified.**

This initial task was accomplished by the development team previously identified. An initial inventory of available ecological and fisheries data that are relevant to species managed by the SAFMC was developed during the SAFMC's EFH workshop process. This is included in Appendix O of the habitat plan and is based on information from state, Federal, and regional habitat partners working on EFH in the Southeast. This identifies FMPs and the data provided by the NMFS Beaufort Laboratory, NOAA's SEA Division, the states and other Federal agencies involved in the EFH development process in the South Atlantic. The inventory data provide the information framework for describing and identifying EFH and data gaps. Deficits in data availability (i.e., accessibility and application of the data) and in data quality (including considerations of scale and resolution; relevance; and potential biases in collection and interpretation) are identified.

**B. To identify EFH, basic information is needed on current and historic stock size, the geographic range of the managed species, the habitat requirements by life history stage, and the distribution and characteristics of those habitats. Information is also required on the temporal and spatial distribution of each major life history stage (defined by developmental and functional shifts). Since EFH should be identified for each major life**

**history stage, data should be collected on, but not limited to, the distribution, density, growth, mortality, and production of each stage within all habitats occupied, or formerly occupied, by the species. These data should be obtained from the best available information, including peer-reviewed literature, data reports and reliable "gray" literature, data files of government resource agencies, and other sources of quality information.**

Information that could be obtained within the time frame available to complete the amendment, and which addressed the information requirements discussed above, was used. Available information concerning the general distribution and geographic limits of EFH has been described and presented by life history stage using maps that are part of a developing ArcView GIS. Maps developed to date by SAFMC staff, the Florida Marine Research Institute, the NMFS Southeast Fisheries Science Center, NOAA SEA Division, the South Carolina Department of Natural Resources, and the North Carolina Department of Natural Resources encompass appropriate temporal and spatial variability in presenting the distribution of EFH. Where information on seasonal changes exists this information is included in the maps.

**C. To identify and describe EFH, the Guidelines call for analysis of existing information at up to four levels of detail. At Level 1, the presence/absence of distributional data are available for some or all portions of the geographic range of the species; at Level 2, habitat-related densities of the species are available; at Level 3, growth, reproduction, or survival rates within habitats are available; and at Level 4, production rates by habitat are available. The Guidelines also call for applying this information in a risk-averse fashion to ensure adequate areas are protected as EFH of managed species.**

The SAFMC, in assessing the relative value of habitats, is taking a risk-averse approach to ensure adequate areas are protected as EFH for managed species. For the most part, only Level 1 information is available, although some Level 2 information exists and is reflected in the distribution maps produced for the DCA by NOAA's SEA Division. The data have been evaluated to identify those habitat areas most commonly used, or essential for the species, including those that will better ensure the health of the fish populations and their ecosystems. Completion of needed research, which is identified in the DCA, will increase the information base to higher analytical levels and will allow the SAFMC to better define and describe EFH in the future.

The NMFS believes that the SAFMC draft amendment sufficiently addresses provisions in the Guidelines as delineated in Items A, B, and C (above). In our review of the draft habitat plan (Sections 3.1.2.1 and 3.1.2.3.1) we noted that certain freshwater habitats are identified as EFH since these areas perform water quality functions and provide habitat for prey species. These two criteria alone are not sufficient to warrant including an area as EFH since EFH must be actual habitat for the managed species themselves. The NMFS recommends that the habitat plan be amended to exclude description of freshwater areas as EFH when based solely on water quality and prey habitat functions and where these habitats are not commonly used by managed species.

Other recommended changes pertaining to EFH description and identification include:

- Page 4 of the draft habitat plan should be amended to acknowledge that “Level 2” data exist for the life stages of some managed species.
- A clear explanation should be included regarding how the data and other information were analyzed to identify those areas most commonly used by managed species.
  - To enable readers to easily locate the EFH descriptions the text, Section 3.3 of the draft habitat plan should be highlighted in the Table of Contents by separation (spacing) and by capitalization of the words “Managed Species Distribution and Use of Essential Fish Habitat.”

### **EFH determination**

**The Guidelines recommend the following approaches to determine EFH.**

**A. The information obtained through the analysis in paragraph 600.815 (a)(2)(I) of the Guidelines will allow Councils to assess the relative value of habitats. Councils should interpret this information in a risk-averse fashion to ensure adequate areas are protected as EFH of managed species. Level 1 information, if available, should be used to identify the geographic range of the species. Levels 2 through 4 information, if available, should be used to identify the habitats valued most highly within the geographic range of the species. If only Level 1 information is available, presence/absence data should be evaluated (e.g., using a frequency of occurrence or other appropriate analysis) to identify those habitat areas most commonly used by the species. Areas so identified should be considered essential for the species. However, habitats of intermediate and low value may also be essential, depending on the health of the fish population and the ecosystem. Councils must demonstrate that the best scientific information available was used in the identification of EFH, consistent with National Standard 2, but other data may also be used for the identification.**

Given the broad definition of EFH, the extensive distribution of the managed species in the South Atlantic region, and NMFS guidance to be risk averse in the face of uncertainty, significant portions of estuarine systems within the South Atlantic region are considered essential habitat for species managed by the SAFMC. The task of identifying EFH is complicated by the fact that, from an ecosystem viewpoint, the biological and hydrological components of an estuary are inseparably linked to those of adjacent freshwater and marine ecosystems. In the DCA, EFH boundaries were set based on discernible physical borders and on the ecological and environmental requirements of managed species.



**B. The Guidelines state that if a species is overfished, and habitat loss or degradation may be contributing to the species being identified as overfished, all habitats currently used by the species should be considered essential. Additionally, certain historic habitats that are necessary to support rebuilding the fishery should be considered when their restoration is technologically and economically feasible. Once the fishery is no longer considered overfished, the EFH identification should be reviewed, and the FMP amended, as appropriate.**

In the South Atlantic region, all habitats used by overfished species are being designated as EFH since habitat loss may be contributing to the decline of species that are being overfished. Any additional information that is developed regarding habitat requirements or changes in the status of overfished stocks will be addressed, as appropriate, in future FMP amendments.

**C. The Guidelines state that EFH will always be greater than or equal to aquatic areas that have been identified as "critical habitat" for any managed species listed as threatened or endangered under the Endangered Species Act.**

None of the species managed by the SAFMC are endangered or threatened. If this changes, then the amendment should be reexamined to ensure inclusion of appropriate management measures.

**D. Where a stock of a species is considered to be healthy, then EFH for the species should be a subset of all existing habitat for the species.**

The DCA describes the habitats most commonly used by the managed species. Where density information is available, the EFH maps in the DCA are based on NOAA's ELMR data, which excludes areas with very low occurrence of the species. Thus, where information permits, EFH for species that are not overfished will be a subset of all existing habitat for those species. The SAFMC should ensure that the ELMR data are a component of EFH descriptions.

**E. Ecological relationships among species and between the species and their habitat require, where possible, that an ecosystem approach be used in determining the EFH of a managed species or species assemblage. The extent of the EFH should be based on the judgement of the Secretary and the appropriate Council(s) regarding the quantity and quality of habitat that is necessary to maintain a sustainable fishery and the managed species' contribution to a healthy ecosystem.**

From an ecosystem viewpoint, the biological and hydrological components of estuarine and marine environments are closely linked to other aquatic environments, uplands, and the atmosphere. This consideration was applied in the EFH designation and description contained in the DCA, and the SAFMC believes that the areas described as EFH for managed species encompass habitat necessary for a healthy ecosystem as well as healthy fish populations. The SAFMC recognizes that conservation and enhancement of EFH, in the absence of protection and enhancement of surrounding environments and systems, will not provide sustainable fisheries. Through its existing habitat protection policies the SAFMC addresses numerous activities (e.g.,

ocean dumping) that could affect EFH even though these activities may not directly occur in key habitat locations. The Council should continue to work cooperatively with the state, Federal, and regional habitat partners to ensure that the habitat plan captures an ecosystem view of the region in the designation of EFH and EFH-HAPCs for managed species.

**F. If degraded or inaccessible aquatic habitat has contributed to the reduced yields of a species or assemblage, and in the judgement of the Secretary and the appropriate Council(s), the degraded conditions can be reversed through such actions as improved fish passage techniques (for fish blockages), improved water quality or quantity measures (removal of contaminants or increasing flows), and similar measures that are technologically and economically feasible, then EFH should include those habitats that would be essential to the species to obtain increased yields.**

The DCA does not distinguish between healthy and degraded habitat, but many degraded habitats are included in the EFH descriptions. If additional information identifies degraded habitats that should be added, the FMPs can be appropriately amended. NMFS recommends that the SAFMC identify those species for which degraded habitat may be contributing to reduced yields, and identify as a research priority the identification of restorable degraded habitat for those species.

With inclusion of the above referenced additional information and changes, as noted at the end of each section (A through F, above) the NMFS believes that the SAFMC's draft amendment complies with the requirement to determine EFH in accordance with conditions identified in the Guidelines.

#### **EFH mapping requirements**

**The Guidelines recommend that the general distribution and geographic limits of EFH for each life history stage should be presented in FMPs in map form. Ultimately, these data should be incorporated into a geographic information system (GIS) to facilitate analysis and presentation. These maps may be presented as fixed in time and space, but they should encompass all appropriate temporal and spatial variability in the distribution of EFH.**

The SAFMC and NMFS have worked cooperatively with NOAA's SEA Division and state GIS programs to develop map products as suggested in the Guidelines. The maps are presented in a Digital Spatial Framework that meets the standards recommended by the Guidelines. The maps identify watersheds, river reaches, estuarine and coastal embayment boundaries, estuarine isohalines, and offshore boundaries. NOAA's SEA Division provided data from NOAA's ELMR Program, non-ELMR species/estuary tables, digitized maps for atlas offshore species, various South Atlantic atlases, estuary/embayment maps, regional estuarine salinity and relative abundance maps, and life history tables and texts. Offshore habitat maps were provided by the Florida Marine Research Institute through the cooperative State/Federal/SAFMC and SEAMAP Hard Bottom Mapping Project. The Institute, through its Statewide Ocean Resource Inventory

Program, provided GIS coverages and data on habitat distribution (also incorporated into Environmental Sensitivity Index-ESI maps), and information on species use of these habitat. All of these data were incorporated into the ELMR maps. The South Carolina Department of Natural Resources provided MARMAP data (through NOAA SEA Division) and oyster habitat maps. The Georgia Department of Natural Resources provided data on habitat distribution. These data also were incorporated into ESI maps. They also provided information on species use of these habitats and this information was incorporated in the ELMR maps. The North Carolina Division of Marine Fisheries provided GIS data/coverages for habitat types (incorporated into ESI maps), and with information on species use of these habitats (found in the ELMR maps). The geographical information provided to the SAFMC was used in the initial development of the DCA and designation of EFH and EFH-HAPCs. The SAFMC will continue coordination with state and Federal GIS programs to build in-house ArcView GIS capabilities and map products for use in the final DCA. The SAFMC is aware of information gathered by the Florida Keys and Grays Reef National Marine Sanctuary and will include appropriate GIS coverages in the final habitat plan.

The NMFS generally finds that the maps are complete; however, the use of monochrome copies of color maps makes them difficult to read. To ensure usability of the final maps we recommend that they be presented in a format that allows clear and easy interpretation. We understand that the SAFMC seeks to make the maps available in color and accessible via computer. This process is encouraged and the location of the web site having this information should, if possible, be readily identified in the final habitat plan.

### **Fishing activities that may adversely affect EFH**

**The Guidelines state that FMPs must identify threats to EFH from fishing activities and must include management measures that minimize adverse effects. Conservation and enhancement measures must also be identified.**

The SAFMC and NMFS have developed a description of fishing activities that could adversely affect EFH. This information is presented in the DCA, including a detailed discussion of management measures that the SAFMC implements to minimize adverse effects on EFH from fishing. The conservation and enhancement measures implemented by the SAFMC, to date, include actions that eliminate or minimize physical, chemical, or biological alterations of the substrate, and the loss of or injury to benthic organisms, prey species and their habitat, and other components of the ecosystem. It is the SAFMC's view that they currently prevent, mitigate for, and/or minimize most adverse effects associated with South Atlantic region fishing activities. The SAFMC currently employs, or is proposing to employ, many of the options recommended in the Guidelines for managing adverse effects from fishing. These include fishing gear restrictions; seasonal and aerial restrictions on the use of specified gear including use of transponders to monitor vessels involved in certain fishing activities; gear modifications to allow escapement of particular species or particular life stages (e.g., juveniles); harvest limits; prohibitions on the use of explosives and chemicals; prohibitions on anchoring or setting

equipment in sensitive areas; prohibitions on fishing activities that cause significant physical damage in EFH; and time/area closures including closing areas to all fishing or specific equipment types during spawning, migration, foraging, and nursery activities; and designating zones for use as marine protected areas to limit adverse effects of fishing practices on certain vulnerable or rare areas/species/life history stages, such as those areas designated as habitat areas of particular concern. The fishing monitoring program and additional fishing-related management measures, will be implemented by the SAFMC as needed to appropriately lessen identified impacts to EFH through future plan amendments.

The NMFS believes that this section sufficiently identifies fishing related threats. As additional information becomes available it should be included in the habitat plan.

### **Identification of Non-fishing related activities that may adversely affect EFH**

**The Guidelines recommend that FMPs must identify activities that have the potential to adversely affect EFH quantity or quality, or both.**

Non-fishing activities that may adversely affect EFH are discussed in detail in the DCA. Broad categories of activities that can adversely affect EFH include, but are not limited to: dredging, filling, excavation, mining, impoundment, water diversion, thermal discharges, actions that contribute to non-point source pollution and sedimentation, introduction of potentially hazardous materials, introduction of exotic species, and conversion of aquatic habitat such that EFH functions are eliminated or diminished. The DCA provides a description of the EFH that are most likely to be adversely affected by these or other activities. For each activity, the DCA also describes known and potential adverse impacts to EFH. The descriptions explain the mechanisms or processes that may cause adverse effects and how these may affect habitat function.

The NMFS believes that this section sufficiently identifies non-fishing related threats. As additional information becomes available it should be included in the habitat plan.

### **Cumulative impacts analysis**

**The Guidelines recommend that, to the extent feasible and practicable, FMPs should analyze how fishing and non-fishing activities influence habitat function on an ecosystem or watershed scale.**

The DCA includes an analysis of how fishing and non-fishing activities influence habitat function on an ecosystem or watershed scale. This includes a discussion of available information describing the ecosystem or watershed and the dependence of managed species on the ecosystem or watershed. An assessment of the cumulative and synergistic effects of multiple threats, including the effects of natural stresses (such as storm damage or climate-based environmental shifts), and an assessment of the ecological risks resulting from the impact of those threats on the

managed species' habitat is included. Detailed information and maps of fishing and non-fishing cumulative impacts are limited and are largely unavailable on a scale and within a time frame that allows them to be incorporated into the DCA. To address this inadequacy the SAFMC, in consultation with the NMFS, plans to utilize information developed in connection with the NMFS Habitat Research Plan as well as information developed in connection with normal activities of the SAFMC. The NMFS Research Plan identifies and prioritizes research needs, including those related to species and habitats under SAFMC purview. As the data base expands and improves the habitat plan will be revised and the FMPs will be amended, as appropriate.

The NMFS believes that this section sufficiently identifies cumulative impacts associated with fishing and non-fishing related activities. As additional information becomes available it should be included in the habitat plan.

### **Conservation and enhancement**

**The Guidelines recommend that FMPs must describe options to avoid, minimize, or compensate for adverse effects to EFH and to promote EFH conservation and enhancement.**

The SAFMC has used the following approaches to implement this requirement of the Guidelines:

1. Development of policy statements for specific habitats and activities;
2. Cooperation between the SAFMC and NMFS on application of activity based conservation recommendations that were developed by the NMFS HCD; and
3. Reliance on accepted/established conservation considerations for determining appropriate and necessary measures needed for EFH conservation and enhancement.

Regarding Item 1, the SAFMC, through the Habitat Advisory Panel, has developed specific guidance for activities occurring in submerged aquatic vegetation and for dredging and dredged material disposal (including use of Ocean Dredged Material Disposal Sites, offshore and nearshore underwater berm creation, maintenance dredging and sand mining for beach renourishment, and open water disposal); and oil and gas exploration, transportation, and development. The SAFMC policies contain descriptions of the resources involved, a discussion of potential impacts to those resources, and identify provisions that should be used or considered to avoid and minimize the likelihood of significant harm.

The activity based general recommendations (Item 2, above) were developed by the NMFS and are incorporated into the DCA as conservation strategies for most development activities that occur in waters of the South Atlantic, including EFH. The recommendations are mostly a generalized set of best management practices that should be employed when an action might significantly and adversely affect EFH. A total of fifteen activities are addressed in this section.

The general conservation considerations (Item 3, above), are a compilation of factors that should be evaluated when reviewing an action that could affect fishery resources and their habitat, including EFH. For the most part, these factors are adaptations of the Guidelines and regulatory provisions presently used by Federal regulatory and review agencies when reviewing proposals for activities in waters of the U.S.

Through use of the fishery conservation and management provisions contained in the Magnuson Fishery Conservation and Management Act, prior to its amendment by the MSFCMA, the SAFMC has made substantial progress in controlling fishing impacts to aquatic habitats. These provisions are contained in FMPs and they restrict gear use and limit fishing efforts in areas (e.g., seagrass beds) where use of such gear would cause unacceptable harm or where impact reduction and recovery are needed. The MSFCMA, through its EFH provisions, allows even greater opportunity for controlling fishing impacts. In accordance with the EFH provisions the SAFMC, acting through a comprehensive amendment, proposes to designate habitats and to increase efforts to conserve and enhance these areas. Additionally, the SAFMC is proposing specific FMP amendments that will further restrict gear use, enable better monitoring of fishing activities, and allow closure of areas where recovery and fishery resource investigations (research) are needed.

Since the MSFCMA directs the Councils to develop EFH conservation measures, the NMFS recommends that the measures identified in Chapter 5 be identified as “conservation measures” rather than “preservation” measures. Other than this, the NMFS finds that the conservation concerns and measures, as addressed in the draft habitat plan, are adequate.

#### **Prey species**

**The Guidelines recommend that FMPs should identify the major prey species for the species in the FMU and generally describe the location of prey species habitat. Actions that cause a reduction of the prey species population, including where there exists evidence that adverse effects to habitat of prey species is causing a decline in the availability of the prey species, should also be described and identified.**

The importance of prey species for species managed by the SAFMC is recognized and addressed in associated species descriptions contained in the DCA. As additional information becomes available it should be incorporated, as appropriate, into habitat descriptions and amendments.

#### **Identification of habitat areas of particular concern**

**The Guidelines recommend that FMPs should identify habitat areas of particular concern (HAPCs) within EFH. In determining whether a type, or area of EFH is a HAPC, one or more of the following criteria must be met: (1) the importance of the ecological function provided by the habitat; (2) the extent to which the habitat is sensitive to human-induced**

**environmental degradation; (3) whether, and to what extent, development activities are, or will be, stressing the habitat type; and (4) the rarity of the habitat type.**

The SAFMC has proposed a number of EFH HAPCs. The information provided contains a detailed description of the managed species, their distribution, and EFH use. At the present time, EFH HAPCs have been identified for shrimp, red drum, the snapper/grouper complex, coastal migratory pelagics, and golden crab. Because of the complexity of many of the species assemblages, the size of the management area, and limits on the information that is available, the EFH HAPC identification process will continue through the public hearing process (identification of other EFH-HAPCs during the hearing process) and extend beyond the initial FMP amendment period which ends on October 11, 1998.

The NMFS concurs with the currently proposed EFH HAPCs, with the exception of the Sargasso Sea EFH HAPC proposed for sargassum. Since the Sargasso Sea is located outside of the EEZ, it cannot be designated as EFH or as a HAPC. The SAFMC should withdraw HAPC designation for this particular area.

### **Research and information needs**

**The Guidelines recommend that each FMP should contain recommendations, preferably in priority order, for research efforts that the Councils and NMFS view as necessary for carrying out their EFH management mandate.**

The NMFS believes that research and information needs, as addressed in the DCA are generally adequate. Section 6.0 the DCA presents a research and monitoring program based largely on the NMFS Habitat Research Plan (Plan). This program will be revised by the SAFMC after public hearings to better define research needs by species/species complex and to identify ongoing efforts of habitat partners that will provide the SAFMC with EFH related information. Based on our review of the DCA, the SAFMC should ensure that research needs for each managed species are either addressed in Section 6 of the habitat plan, or that a plan for identifying and addressing those needs is provided in this section. Additionally, we recommend that these and other research needs be continually updated.

### **Review and revision of EFH provisions of FMPs**

**A. The Guidelines recommend that the Councils and NMFS periodically review the EFH components of FMPs, including an update of the equipment assessment originally conducted pursuant to paragraph 600.815 (a)(3)(ii). Each EFH FMP amendment should include a provision requiring review and update of EFH information and preparation of a revised FMP amendment if new information becomes available. A complete review of information should be conducted as recommended by the Secretary, but at least every 5 years.**

The SAFMC believes that amendments to FMPs can be made on an “as needed” basis and scheduling specific times for reviewing EFH information and preparing amendments to the FMPs is unnecessary. The NMFS concurs with this view, but believes that a mechanism that ensures periodic examination of the EFH amendments and a determination regarding the need for FMP modification is needed. Therefore, establishment of such a mechanism or checkpoint should be established and explained in the DCA.

**B. To foster cooperation and efficient management of fishery resources and their habitats the Guidelines recommend that the Councils should coordinate with state and interstate fishery management agencies where Federal fisheries affect state and interstate managed fisheries or where state or interstate fishery regulations affect the management of federal Fisheries.**

The SAFMC has worked closely and cooperatively with its member states and the ASMFC; EPA Region IV; the U.S. Fish and Wildlife Service; conservation organizations; commercial and recreational fishermen; the Gulf of Mexico Fishery Management Council; and each of the South Atlantic states’ fishery, coastal zone management, and other state agency personnel in developing the DCA. Further, the SAFMC meetings, including regular meetings of its panels and advisory groups, are routinely attended by state and interstate fishery managers. This collaboration should continue through development and implementation of the EFH consultation process and in conjunction with other routine matters involving management of Federal fisheries.



## Attachment 1

NMFS Public Meetings to Solicit Input From the Fishing Public on the NMFS Recommendations to the South Atlantic Council.

The NMFS held public meetings in St. Augustine, Florida and Charleston, South Carolina on the recommendations to the South Atlantic Fishery Management Council (SAFMC). Notice of these meetings were provided in connection with the SAFMC's notice of meeting for their Essential Fish Habitat Amendment and advertised in the SAFMC's newsletter and separate notices. It was also provided to coastal newspapers throughout the area, to marine extension and port agents, and the Federal Register (Fed. Reg./ Vol. 63, No. 106, 30176- 30180, Wednesday, June 3, 1998). These meetings were conducted to meet the requirements of the Magnuson-Stevens Fishery Conservation and Management Act found in Section 305 at 104-297(b)(1)(B). This section of the Act provides that the Secretary of Commerce, in consultation with participants in the fishery, shall provide each Council with recommendations and information regarding each fishery under that council's authority to assist it in the identification of Essential Fish Habitat, the adverse impacts on that habitat, and the actions that should be considered to ensure the conservation and enhancement of that habitat. The results of these meetings and the comments received follow.

Public Meeting on the NMFS Recommendations Held in St. Augustine Florida, June 15, 1998; 29 attendees.

Jack Sobel (Center for Marine Conservation)

Comment: It appears that both NMFS and SAFMC have identified as fishing-related threats to habitat only those activities impacting directly benthic resources and have not addressed any kinds of food web or fisheries removal and the impact that fisheries removal may have on habitat such as corals and the changes in the reef fish community, for example, and how that may impact on both coral and algae substrates and the interaction between them. Is that accurate of the draft comments?

Roger Pugliese (SAFMC)

Response: We have some information relative to that. I think there is going to be an expansion of the overview relative to the impacts. The Council, in some of the previous actions such as fish trap prohibition, some of the other activities have a lot of that information specific to what some of the impacts were incorporated into previous actions and information in previous documents. I think there will be an attempt to try to expand the discussions within this document to address, probably under the cumulative impacts section, further some of the implications relative to the impacts of food webs, etc. We do have some discussion relative to the impacts in marine biodiversity within this document. So it does begin to address those specifically.

## NMFS Essential Fish Habitat Final Recommendations To SAFMC

Public Meeting on the NMFS Recommendations in Charleston, South Carolina, June 22, 1998; 8 attendees.

Dr. Eric Heiden (Sport Fishing Coalition of South Carolina, Florence, SC)

Comment: My question to you sir, if we just received these recommendations, how could you expect anybody to absorb, look at, or identify what these are, and make any comments now. It would be pretty difficult just getting them. I would like to recommend that or see you at least sent to the twelve identified fishing clubs within the State of South Carolina, the charter boat industry of which you have records of, the head boat industry that you have records of, that this should have been sent out so that they could have at least made some commentary to you today. I would not call this a curve ball because I do not think it was done with mal intent. The point remains though that I am not going to glance through this and make comments one way or another and hopefully we will look at it and several of us will make some comments and mail it to you, but I do not see how anyone here can speak intelligently about this so, you know, hopefully on the next go around that this kind of stuff will at least be sent to those people you know would be interested. Thank you.

David Rackley (NMFS)

Response: I will note that, for the record, that we did contact the Council and we did request that they advise that the recommendations were available for review and, of course, the purpose of this meeting is to make those recommendations available to you and to solicit your comments and input.